



Boulder County Nature Association

Our mission: To educate, inform and inspire for the purpose of conserving and promoting resilient natural ecosystems in our region.

2016 ECOLOGY FIELD CLASSES

Bird Song Steve Jones



How do birds acquire songs? How did bird singing evolve? What do the songs tell us about individual species (including their identity and birthplace)? Using a parabolic microphone, we'll zero in on bird songs in the foothills and mountains. Students will receive a CD of bird songs recorded throughout Boulder County.

Indoor Class: Wednesday, May 11, 2016 – 7- 9 pm
Field class: Sunday, May 29, 2016- 6-10 am
Field class: Sunday, June 5, 2016-6-10 am
Tuition: \$85 (\$75 for BCNA members). Limited to 10 participants.

Steve Jones is author of *The Last Prairie* and co-author of *Peterson Field Guide to the North American Prairie*, *Wild Boulder County*, *Colorado Nature Almanac*, and *Butterflies of the Colorado Front Range*. He taught in the Boulder Valley Public Schools for 33 years and has taught BCNA field classes for 20 years. His consulting work includes more than 25 breeding bird surveys for local agencies and private companies.

Bears Perry Conway



The class component will involve introducing all eight bear species and a bit about their natural history. The main portion of the class, however, will be on the ecology, evolution and population status of the three species found in North America. As Colorado now only has black bears, a separate unit will be devoted to them. This unit will include their diet, yearly life cycle, and population status and safety issues. The field session will look at habitats black bears use at different times of the year.... feeder plants, marking of trees and hibernation sites.

Indoor class: Wednesday, May 18, 2016- 6:30 – 10 pm
Field class: Saturday, May 21, 2016- 6:30 am - noon
Tuition: \$95 (\$85 for BCNA members). Limited to 12 participants.

Wm. Perry Conway is a full-time professional naturalist, photographer, guide and educator. He has studied eagles on six continents. His educational multi-media show, "Eagles on the Wind", won first prize at the National Educational Film Festival.

Bats
Rick Adams



This class will investigate the natural history of these enigmatic mammals by delving into their ecology, physiology, morphology, and behavior. In addition, we will see bats up-close-and-personal by conducting field work. The class will consist of a "getting-to-know-bats" lecture and discussion followed by a night of mist-netting at a local pond. In addition, we will listen to and record echolocation calls of several species and watch them drinking by using a night-vision camcorder with infrared lighting.

Indoor class: Wednesday, June 15, 2016- 6:30 - 9 pm
Field class: Thursday, June 16, 2016 -7 -11 pm
Tuition: \$70 (\$60 for BCNA members). Limited to 12 participants.

Rick Adams has studied bats in the West since 1984. He is an Associate Professor at the University of Northern Colorado and is founder and president of the Colorado Bat Society. Rick is also the author of *Into the Night: Tales of Nocturnal Wildlife Expeditions* and *Bats of the Rocky Mountain West: Natural History, Ecology and Conservation*.

Birding under the Influence (Of Habitat)
David Leatherman



Birds are certainly influenced by their habitat. They make decisions about which ones to enter, and which ones to avoid. Once there, they decide how to use it. Will they dine, nest, or just rest? It follows that birders with knowledge of the same habitat features influencing birds, could have a better and richer experience in the field. To that end, in this course designed to most benefit birders of beginning-to-moderate skill levels, we will discuss, both in a three-hour evening class and two field trips, the basics of habitats and how birds respond to them. Specifically, we will look at the gross classification and architecture of habitats, food webs, nesting requirements and much more, all illustrated by local examples. We will start with the big picture and continue breaking it down to elements as small as buds and aphids. Our theme will be "it's all connected".

Indoor class: Monday, June 13, 2016- 6-9 pm
Field class: Saturday, June 18, 2016- 8 am -12 pm
Field class: Sunday, June 26, 2016- 8am -1 pm
Tuition: \$105 (\$95 for BCNA members). Limited to 10 participants.

David Leatherman has worked as Forest Entomologist for the Colorado Forest Service headquartered at CSU in Fort Collins. Hobbies include birding (obsession with what they eat) and nature photography. He is a former editor of "Colorado Birds", the journal of the Colorado Field Ornithologists. He currently writes a column in the publication entitled "The Hungry Bird" (about bird food habits) and is working on a book about "life among the headstones," an account of natural history in an old Fort Collins cemetery.

Falcons Perry Conway



With images from his vast collection of falcon photographs and years of studying falcons in the wild, the class will begin with the evolution, natural history and population status of all North American species. For the field class, three live falcons will be displayed and their natural history discussed. The class will then drive to historic nesting sites and feeding areas which should provide an excellent opportunity for seeing falcons in the wild.

Indoor class: Friday June 24, 2016 - 6:30 – 10 pm

Field class: Saturday, June 25, 2016 - 6:30 am - noon

Tuition: \$95 (\$85 for BCNA members). Limited to 12 participants.

Starting in graduate school, **Perry Conway** has studied falcons in the wild. He is very familiar with all six North American species. As a licensed wildlife educator, he has worked with falcons from kestrels to gyrfalcons and understands their similarities and differences

What's Bugging You? Scott Severs



Is a ladybug really a bug? What's the difference between a fly and a bee? What features do all beetles have in common?

A beginner's introduction, this course will provide information to aid in the field identification of insects. We'll especially look at common insects. Orders not covered by other BCNA classes: True Bugs, Flies, Beetles, and Grasshoppers. We'll look at the general biology, anatomy, and ecology of each Order to unlock the mysteries of their fascinating, colorful, and often secret lifestyles.

Indoor class: Wednesday, July 20, 2016- 6:00 – 8:00 pm

Field class: Sunday, July 24, 2016- 8:00 – 11:00 am

Tuition: \$70 (\$60 for BCNA members). Limited to 8 participants.

Scott Severs has been fascinated by insects since his grandmother first read him *We Like Bugs*, a wonderful 1962 children's book by Gladys Conklin. With a degree in Wildlife Biology from Colorado State University, he enjoys field biology and currently works as a consultant for Ecology and Environment, Inc. Scott also has taught BCNA classes on dragonflies, warblers and sparrows.

Humble Bee, Bumble Bee Virginia Scott



Colorado is home to around 950 bee species of many different colors, sizes, and shapes. In this class we will focus Colorado's biggest and fuzziest – the bumble bees. We will learn about their life cycle, nesting, floral preferences, and putting them in the context of our other bees. We will also discuss tips on how to identify the 24 species that call Colorado home and how to attract them to your gardens. We will venture out on a hike to see which bumble bees we can find, and if they don't show (or even if they do) we may check out some of Colorado's other bees.

Indoor class: Thursday, August 25, 2016- 7-9 pm

Field class: Saturday, August 27, 2016, 9:30 am – 12 pm

Tuition: \$65 (\$60 for BCNA members). Limited to 12 participants.

Virginia Scott has been the Collections Manager of the Entomology Collections at the University of Colorado Museum of Natural History in Boulder since 1994. She is lead author of *The Bees of Colorado*. She is also the scientific advisor to *The Bees' Needs*, a Citizen Science Project focusing on some of Colorado's native bees (<http://beesneeds.colorado.edu>).

Bad Asters—An Introduction to the Confusing World of Composites
Megan Bowes



Poster, Mary Ann Bonnell

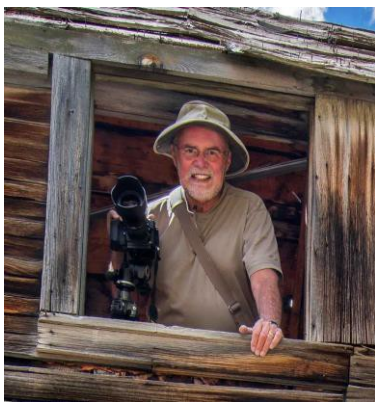
This three-day class will delve into the large and admittedly complex sunflower family. Have you ever hiked along the trail only to discover one, two—no, five different darn yellow composite plants?! We will explore the diversity of the Asteraceae family, focusing on the multitude of morphological characteristics as well as general evolutionary history and benefits to pollinators. Come find out how a ray flower differs from a disk flower and what the lowly hairy golden aster has in common with big sagebrush. We might even take a look at other wildflowers and perhaps even a grass or three!

All levels of plant expertise and experience are welcome. The class will be tailored to suit the interests of participants as much as possible. Following an introductory evening session, we will spend two days in the field honing our Asteraceae and other plant ID skills.

Indoor class: Wednesday, September 7, 2016- 7:00 – 8:30 pm
Field classes: Saturday, September 10, 2016 - 9:00 am – 1:00 pm
Field class Saturday September 17, 2016 - 9:00 am – 1:00 pm
Tuition: \$85 (\$75 for BCNA members). Limited to 12 participants.

Megan Bowes is a plant ecologist with Boulder Open Space and Mountain Parks and a board member of Boulder County Nature Association. She is also very active in the native plant community and leads hikes and teaches classes for the Colorado Native Plant Society.

Shoot Like a Pro!
Bob Maynard



Join professional photographer, Bob Maynard, for a photo tour in Rocky Mountain National Park. There will be a two-hour introductory classroom session and a field session in Rocky Mountain National Park. This class is geared toward beginner and intermediate photographers. Although people with point and shoot cameras are welcome, the instruction will be centered on DSLR cameras with interchangeable lenses. We will be in the field early enough to get a good sunrise shot in the park at a time decided by the class.

Subjects covered: Basic camera functions and controls, Why we shoot in Aperture Priority, Composition, Manual exposure compensation. How to choose a lens; focal length; what is the f-rating of a lens? How to freeze the action when the subject is moving? What the heck is ISO? Simple post-processing techniques (how to process your images).

Indoor class: July 9, 2016, 1:00 - 3:00 pm
Field class: July 10, 2016, Time to be determined.
Cost: \$95 per person (\$85 for BCNA members). Limited to 10 participants, minimum of 6.
Includes admission to the park and transportation.

Since founding *Colorado Plateau Photo Tours* in 2008, **Bob Maynard** has received over 1500 photo credits and has had images published by *Audubon*, *Images*, *The Surveyor*, *Southwest Archaeology* and Rocky Mountain Raptor Center publications. His public exhibitions can be found throughout Colorado and Utah. He and his wife, Cindy, are co-authors of *A Photographer's Guide to Colorado's National Parks and Monuments*.

Registration begins on January 18, 2016 for BCNA MEMBERS

January 25, 2016 for Non- members

To register for a class, please email Kerrie Bryan at bcnaclassessreq@gmail.com